

Post-Implementation Report

PROJECT IDENTIFICATION

Project Name: Broadband Mapping

Date: 09/30/2010

Project Sponsor: Duane Schell

Project Manager: Dirk Huggett

Report Prepared By: Dirk Huggett

A. KEY PROJECT METRICS

Schedule

| Schedule Objectives | | | | | |
|---------------------|---|--|--------------------------------|----------------------------------|-------------------------------|
| Met/ Not Met | Original Baseline Schedule (in Months) | Final Baseline Schedule (in Months) | Actual Schedule (in Months) | Variance to Original Baseline | Variance to Final Baseline |
| Met | 8 | 8 | 8 | 8 days (5%) Behind | 8 days (5%) Behind |

There were some internal schedule changes due to NTIA requirements and scope additions, but the overall project completed on time.

Cost

| Budget Objectives | | | | | |
|--------------------|--------------------------|-----------------------|--------------|----------------------------------|-------------------------------|
| Met/ Not Met | Original Baseline Budget | Final Baseline Budget | Actual Costs | Variance to Original Baseline | Variance to Final Baseline |
| Met | \$782,951 | \$796,151 | \$779,266 | \$3,685 (0.5%) Under | \$16,885 (2.1%) Under |

The project had two changes that impacted cost. Both were due to NTIA changes in requirements. See the table below.
Final CPI = 1.02

Scope

| Number of baseline deliverables. | 30 |
|--|----|
| Number of deliverables delivered at project completion. | 32 |
| Number of scope changes in the post-planning phases. | 2 |
| Major Scope Changes | |
| The first scope change was during planning. The second one is related to NTIA changes. See the table below for all change details. | |

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Quality

| | |
|---|---|
| Number of defects/quality issues identified after delivery. | 1 |
| Number of success measures identified in the Business Case that were satisfied or achieved at project completion. | 9 |

Below is a list of all Changes and areas of impact that occurred in the project. Note: the first three changes occurred in the planning stages and reflect changes to the contract.

| Request # | Date of Request | Description | Area of Impact (C,S,S,Q) | Status Pending / Accept / Reject |
|-----------|-----------------|--|--------------------------|----------------------------------|
| 1 | 1/25/2010 | Replace TeleTrace Routing with Speed Test & Route Wireless | Scope, Quality | Accept |
| 2 | 1/25/2010 | Remove Draft NTIA deliverables from scope | Scope, Cost, Schedule | Reject |
| 3 | 1/25/2010 | Add Survey staff member to project | none | Accept |
| 4 | 4/12/2010 | Split Task 8b into two payments | none | Accept |
| 5 | 5/20/2010 | Extend the data deliverable (Task 5) currently scheduled for July by 1 month. This would not add another delivery, just extend the time period for delivery. | All | Reject |
| 6 | 7/14/2010 | NTIA Data Format changes | Schedule, possibly cost | Accept Option B |
| 7 | 7/14/2010 | Start Spring maintenance early | Schedule, Cost | Reject |
| 8 | 8/26/2010 | Change to Census 2000 Geography | Scope, Cost | Accept |

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B. BUSINESS METRICS

Objectives

| Project Objectives | Measurements | |
|---|------------------------|--|
| | Met/ Not Met | Description |
| <u>Objective 1:</u> Collect and store required data that meets Federal requirements | Met | <u>Measurement:</u> 80% of the providers will provide broadband availability data |
| <u>Objective 2:</u> Provide the public access to the data via a web interface | Not Met Not Met | <u>Measurement 1:</u> A web application to access this data is available on the state infrastructure to the citizens (Y/N) <u>Measurement 2:</u> Any citizen can access 100% of the data within the limits of non-disclosure agreements |
| <u>Objective 3:</u> Model data to align with GIS standards | Met Met Met | <u>Measurement 1:</u> Data is available by address with a 75% coverage <u>Measurement 2:</u> Data is available by provider <u>Measurement 3:</u> Data is available by service area |
| <u>Objective 4:</u> Make the data available in the state GIS infrastructure | Met Met | <u>Measurement 1:</u> Data provided passes 100% of the functional tests to move onto state servers (Y/N) <u>Measurement 2:</u> Data can be accessed by standard state toolsets (Y/N) |
| <u>Objective 5:</u> Provide ability to update data on a regular basis | TBD* | <u>Measurement:</u> There is a toolset to allow providers to update information (Y/N) <u>Measurement:</u> There is a process in place to notify the providers to update the data, how to use the provided toolset, a communications plan to encourage updates, and how to perform the actual update to the data & models. |
| <u>Objective 6:</u> Provide NTIA with required data | Met | <u>Measurement:</u> Data meets Federal requirements and NTIA accepts upload (Y/N) |

* The actual success of the designed process to update the data won't be measured until 2011

Due to concern expressed by the providers about the coverage shown on the map (which was based upon the data they provided) the team decided to close the project without meeting Objective #2. The site is in the production environment, we have provided the link to the site to NTIA as required, but we have not released the link to anybody else.

Lessons Learned

| Lessons Learned |
|---|
| <ul style="list-style-type: none"> For the best accuracy, a map of the census blocks should be given to the providers. It would make it easier for them to accurately identify coverage areas. Different color codes could be used to indicate different types of service. Bringing the private sector into the ESC worked well. We were able to have a direct channel to many of the providers |

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and he helped us address possible concerns prior to becoming an issue.

- The public release of a site, not just having it in production, should be a specific task in the project plan.
- We should have followed-up more closely with the vendor to understand what information the providers were given back after their submissions to avoid having the significant errors we ended up with regarding how the data they provided showed their coverage.
- We thought our original plan to provide the first level data to NTIA in September would be accepted by NTIA. This turned out to be a false assumption. We had to provide data in April and in June. The project was not planned that way, and while we were able to meet those dates without significant impact to schedule and budget, I would have to say that it probably did impact quality. Specifically, I think the original plan would have provided more time for feedback to the providers.

Success Stories

Success Stories

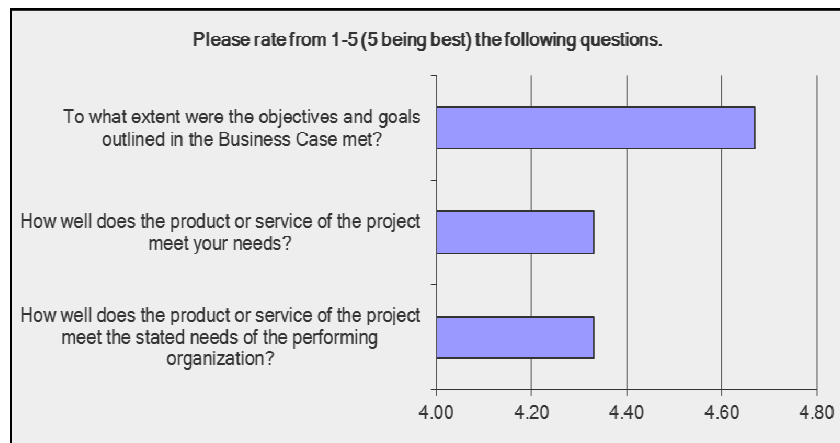
We were able to successfully meet 4 of our 6 business objectives. (One objective won't be measured until 2011 and one was unmet.) We have met all Federal requirements of the program to this point. I believe the progress and success of our project helped our case for the supplemental funding we received for the program.

C. Post-project analysis

Categories: Categories of the report correspond to the categories in the Post-Project Survey. However, we only received three completed surveys so the results are based upon a very small sampling. Scoring was from 1 to 5 with 1 being the lowest and 5 being the best.

Product Effectiveness

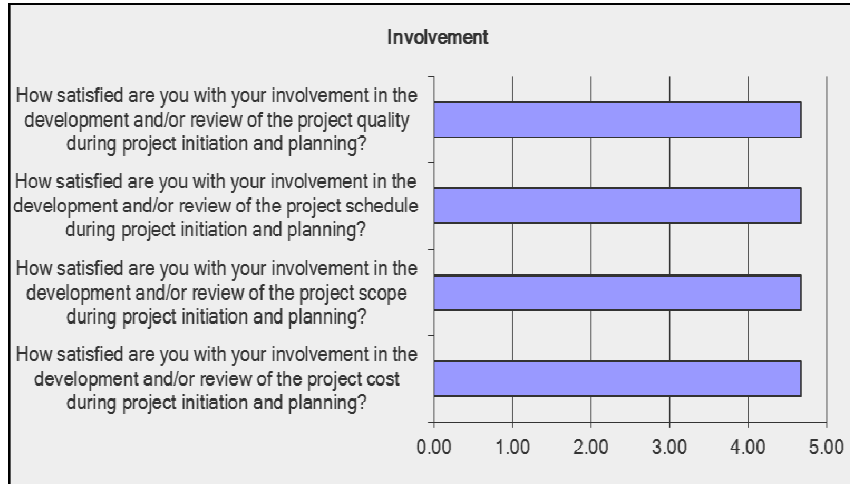
Overall the product meets the goals set. Several providers noted there were gaps in their coverage map. The gaps are caused by the data provided to the state. In general this is due to the methodology some of the providers used to deliver their coverage data. The program is planning a follow-on project to help the providers update their coverage information and provide the opportunity to push to the on-line map several times before the Spring NTIA update. The program plans to simplify the method of providing data for use in future updates as well. We will also use this lesson learned in developing an on-line updating tool.



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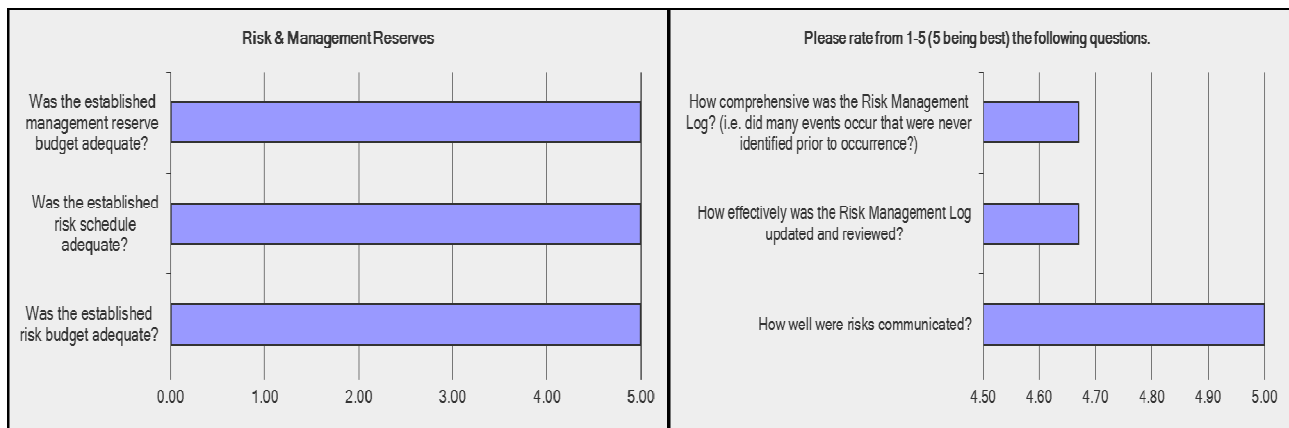
CSSQ Management

The project managed CSSQ very well according to the survey. This was a very complex project that was delivered well within acceptable variance and under budget. We anticipated that map accuracy would be rough in the first deliverable due to the fact that most of the providers didn't have the data we were asking for in a readily accessible format.



Risk Management

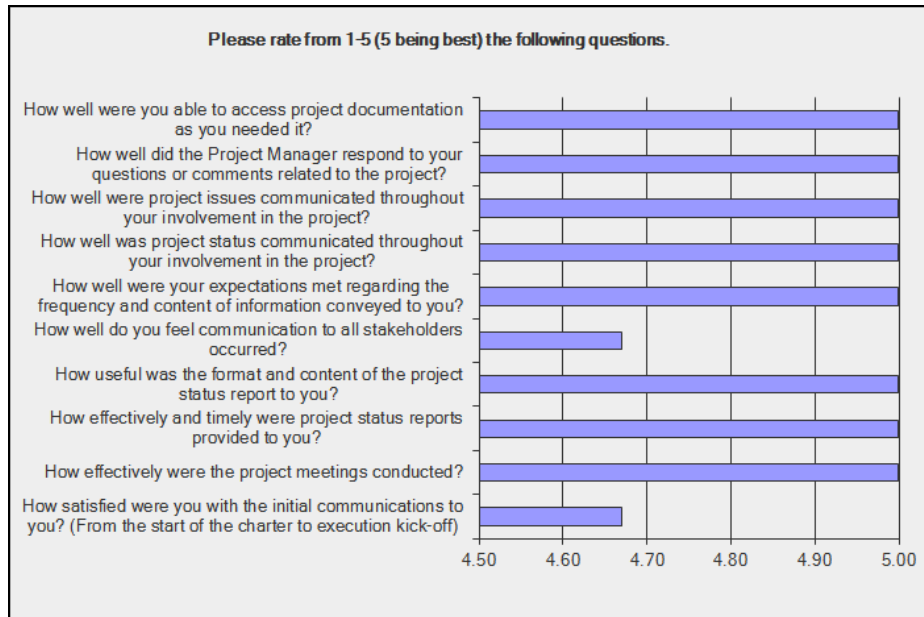
Risk management scored well with the survey respondents. With that said, while a full risk plan was developed, not a lot of time was put into proactive risk management. Most risks were "accepted" and managed as they came up.



Communications Management

The communications plan was very effective and score well with the survey respondents. Biweekly status reports and monthly ESC meetings formed the bulk of the formal communication. Email communications often worked well, but Instant Messaging and phone calls were used for immediate issues and complex topics.

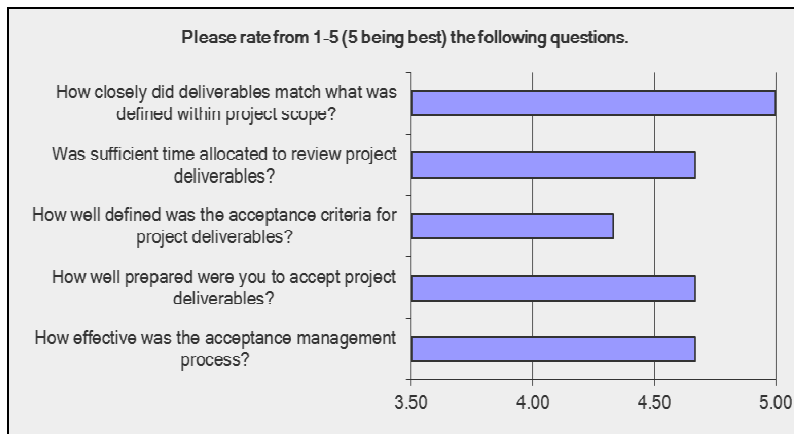
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Acceptance Management

While acceptance management scored well, the process didn't work quite as planned. We planned to install and review each data delivery. After the first one, we realized that having Bob show the team the dataset he received was not an effective use of everyone's time. For data submissions we asked Bob to review the data and provide a list of concerns, which were passed to the vendor prior to approving.

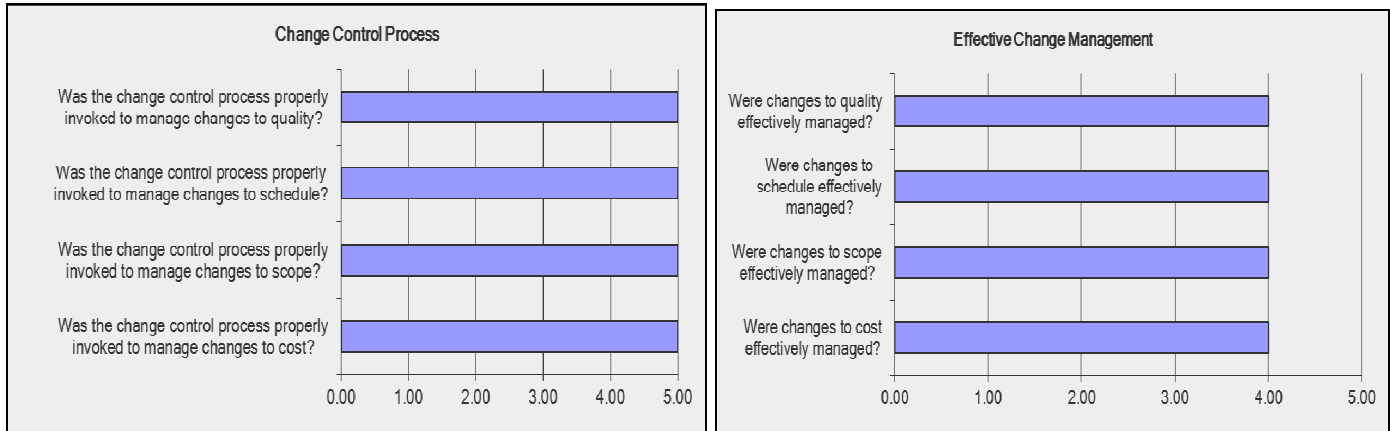
For the non-data deliverables, the process worked well.



Change Management

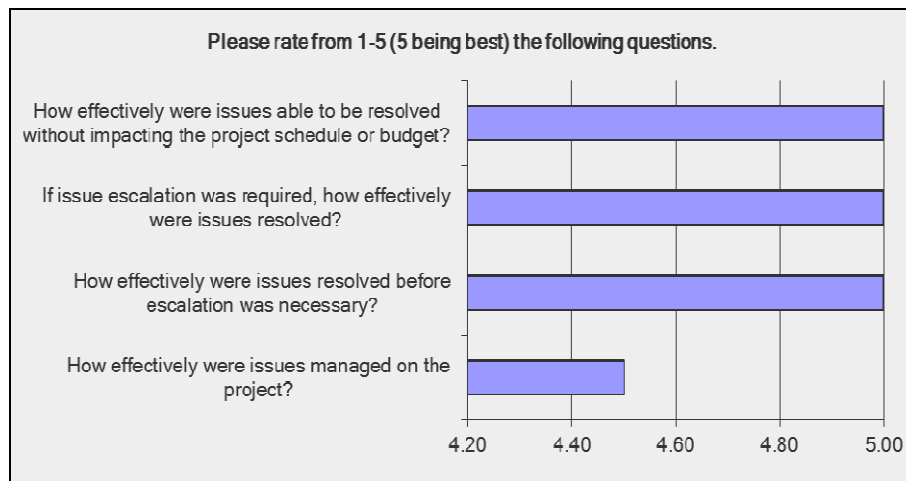
The project received strong scores by all survey respondents on the management of change. This appears to have been effective and the program will continue to use this process in the future.

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Issue Management

Only a handful of items rose to the level of an issue. Two of them were related to changes in the requirements from NTIA. The survey respondents also scored this area well. Overall, the process worked well. We struggled with one issue related to performing survey work. We tried to have in-state resources perform the work, but were unable to get commitment from anyone despite numerous attempts with different entities. We ended up giving the work back to the vendor.



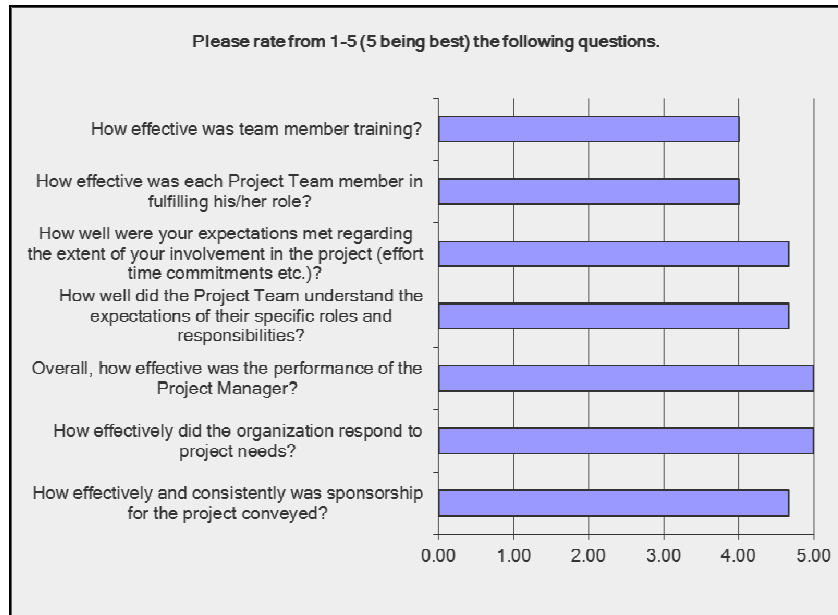
Project Implementation and Transition

Only one respondent scored this section (4 out of 5.) However, this is the area we struggled with the most. We did an effective job of preparing for the transition. We had a feedback page set up that would be processed automatically through the ITSM system for an auto assignment. We planned a staged rollout where the providers could look at the map first before rolling it out to the public. That is where we were less than successful. First, it took a little longer than we planned to have the production site ready to roll out. Then it was decided to send out a thank you note to the providers with the announcement that they could take a look at the system. Unfortunately, this process took much longer than expected. So when we did get the letter out, we didn't have time to manage their concerns and were forced to decide to complete the project without meeting one of our six objectives. A new project to update the provider data earlier than the Spring NTIA update has been planned. This should allow us to meet our last objective by mid-November.

Performance of Performing Organization & Project Team

The project team and ITD as a whole received high scores from the respondents. Early on, the telecom team stepped up and delivered a lot of data from our systems in a very short time period. Each of the core team members had a period where the extra effort was needed and they all delivered. Decisions were made in a timely manner. The public release of the product was the only area where the team and organization didn't deliver above expectations.

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Performance of Vendor

The vendor performed very well during this project. They adapted to the changes made by NTIA. Most, until the end, were at no additional cost. They also adapted to changes made by the state to align with our expectations, again generally without a cost impact. They were able to adjust to schedule conflicts and was almost always available if a question or concern arose.

Their invoice process, however, was difficult. We were required to break down the deliverable into smaller payment points in order to ensure there would be cash flow on a monthly basis. The first invoice was in late March, the second in late May, then early June, then early August and late September. The travel invoice for the February Kick-off meeting wasn't delivered until June 2nd. Then it was still missing one person, did not align to the contract in regards to meals, and required several hours staff time to reconcile. The final person from the February trip was invoiced on August 6th and still required quite a bit of staff time to reconcile.

The August travel still took 2 months to invoice and, while better, still had inaccuracies requiring time to reconcile.

Because this vendor is slated to perform more work for this program, this is one area that needs to be addressed.